REMARKS

In view of the following remarks, reconsideration of the outstanding office action is respectfully requested.

Claims 1, 2, 4-8 and 26 are rejected under 35 U.S.C. §102(e) as being anticipated by Gertner et al (U.S. Patent Pub. No. 2003/0060873).

The applicants respectfully disagree. Gertner discloses methods for co-depositing biological molecules in a metallic substrate on a substrate. For example, Gertner discloses the co-depositing of drugs and metal on the surface of stents for implantation into patients. Using Gertner's method, the entire substrate surface is covered with the metal/nucleic acid co-deposition.

In the current invention, metal is being specifically coated onto the nucleic acid molecule. The nucleic acid molecule is the substrate which is then encased in a metal coating. This allows for the specific metallization of nucleic acids without metal coating of surrounding surfaces. For example, the method can be utilized to coat DNA bridges on the surface of a microelectronic chip to form connective wires between electrodes. The palladium binds specifically to the DNA. The unbound palladium is washed off of the chip. Nickel then is developed only over the DNA where the palladium remains attached. Wires are formed along the DNA, but the remainder of the chip is not coated with nickel.

Since the current invention does not plate a combination of nucleic acid molecules and metal on a surface, but rather specifically plates metal along a nucleic acid substrate, Gertner does not anticipate the current invention.

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Gertner et al (U.S. Patent Pub. No. 2003/0060873) in view of Tu et al (U.S. Patent No. 5,945,527).

This rejection is respectfully traversed in light of the arguments made above regarding Gertner. Tu describes methods of modifying nucleic acid molecules with palladium, but does not overcome the deficiencies of Gertner. Specifically, Tu does not disclose the specific metallization of nucleic acids while avoiding metal deposition on surrounding surfaces.

Claims 9, 10, 12-25 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fish (U.S. Patent Pub. No. 2004/0132220) in view of Gertner et al (U.S. Patent Pub. No. 2003/0060873).

This rejection is respectfully traversed in light of the arguments made above regarding Gertner. Fish describes a method for detection of nucleic acid molecules electronically. Fish does not describe the specific metal coating of nucleic acid molecules and does not overcome the deficiencies of Gertner. Specifically, Fish does not disclose the specific metallization of nucleic acids while avoiding metal deposition on surrounding surfaces. If the method of Gertner were used, the entire electrode system of Fish would be coated shorting out all the sensors.

Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fish (U.S. Patent Pub. No. 2004/0132220) in view of Gertner et al (U.S. Patent Pub. No. 2003/0060873) and further in view of Tu et al (U.S. Patent No. 5,945,527).

This rejection is respectfully traversed in light of the arguments made above regarding Gertner, Fish and Tu..

Claim 32 is rejected under 35 U.S.C. §103(a) as being unpatentable over Fish (U.S. Patent Pub. No. 2004/0132220) in view of Zocchi et al (U.S. Patent Pub. No. 2004/0241699).

This rejection is respectfully traversed in light of the arguments made above regarding Gertner, Fish and Tu..

In view of all of the foregoing, applicant submits that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

Date: 3/27/07

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